



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,026	04/07/2005	George Young	1817-0153PUS1	3422
2292	7590	05/17/2007	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			MAI, ANH T	
PO BOX 747			ART UNIT	PAPER NUMBER
FALLS CHURCH, VA 22040-0747			2832	
NOTIFICATION DATE		DELIVERY MODE		
05/17/2007		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/509,026	YOUNG ET AL.	
	Examiner	Art Unit	
	Anh T. Mai	2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 9-19 is/are allowed.
- 6) Claim(s) 1-8 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-3, 6 are rejected under 35 U.S.C. 102(a) as being anticipated by Sorger et al. [6828894].

Sorger discloses:

- a through hole 35 in the PCB 19;
- a first winding 25 across the hole
- the first winding is connected to a first face of the PCB;
- a core assembly 27 inserted into the hole from the direction of the second face;
- second winding 18 mounted on the core assembly as shown in figure 3;

With respect to claim 3, winding 18 resting on the respective face of the board.

With respect to claim 2, winding 18 is secured to the face of PCB [figure 2].

With respect to claim 6, Sorger discloses the windings are configured so input and output are close in proximity as shown in figure 3.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 5, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sorger in view of Jitaru [5990776].

Sorger discloses the invention as claimed as cited above except for an inductive element in close proximity to the first and second windings and is connected through a capacitive element.

Jitaru discloses inductive element 38 is in close proximity of winding 22 as shown in figure 6 and connected to capacitive element 36. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add capacitively connected inductive element as taught by Jitaru to the device as disclosed by Sorger to implement the additional capacitance between the noise cancellation winding and secondary [col 7, lines 50-55]. Therefore, it would have been obvious to combine Jitaru with Sorger. Regarding the recitation "to provide ripple current canceling signal for the dual inductor" has been considered as functional limitations. Therefore, no patentable weight is given because the entire structure of the claimed invention is met by the teachings of the Jitaru, by necessity the functional limitations of the claims will also inherently be met.

With respect to claim 5, recitation *the inductor forms part of power converter circuit they* cannot be relied upon to distinguish over Jitaru because *they are seen as intended use* (i.e., when the claim is directed to a circuit device, any recitation concerning the input or output signal of such circuit device or environment in which the circuit device is employed is not part of the inventive circuit device).

With respect to claim 8, Jitaru discloses the winding 24 is formed of PCB section method [figure 3A],

Art Unit: 2832

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sorger in view of Schneider et al. [6525632].

Sorger discloses the invention as claimed as cited above except for the winding is formed by metal stamping. Schneider discloses a coil being made from stamping and bent from sheet metal [abstract and figure 4]. At the time of the invention, it would have been obvious to a person of ordinary skill in the art use method of metal stamping as taught by Schneider to the winding as disclosed by Sorger. The motivation would have been to utilize available process of making. Therefore, it would have been obvious to combine Jitaru with Schneider.

Allowable Subject Matter

6. Claims 9-19 are allowed.

Claim 9 recites *inter alia, a core assembly formed from a central plate and a set of three parallel spaced-apart legs, namely an inner leg and outer legs on opposed faces of the central plate forming first and second cores.*

The references of record do not teach or suggest the aforementioned limitation, nor would it be obvious to modify those references to include such limitation.

Response to Arguments

7. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh T. Mai whose telephone number is 571-272-1995. The examiner can normally be reached on 5/4/9 Schedule.

Art Unit: 2832

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anh T. Mai
Primary Examiner
Art Unit 2832

051207